

REMARKS

In the Final Office Action mailed July 26, 2004, the Examiner rejected claims 1 and 2 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,439,897 to Ikeya (hereinafter, "Ikeya"). See Final Office Action, pg. 2. The Examiner also rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Ikeya in view of "the admitted prior art" (APA); rejected claims 5 and 9-12 as being unpatentable over Ikeya in view of Japanese Patent Application Laid-Open, Publication No. 11-326379 ("Shigeyuki"); and rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Ikeya in view of Shigeyuki and further in view APA. See Final Office Action, pgs. 3-4. The Examiner also indicated that claims 3¹, 7 and 8 "would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims," and allowed claims 13 and 14. See Office Action, pg. 4.

Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in claims 3, 7, 8, 13, and 14.

By this Amendment, Applicants propose to amend claims 1, 2, 5, 9, 13, and 14 to more appropriately define the present invention, and add new claims 17-20. Upon entry of Applicants' Amendment After Final, claims 1-20 will be pending in the above captioned patent application.

At the outset, Applicants note that the Examiner indicates that claims 1-14 are currently pending at page 2 of the Final Office Action. Applicants added new claims 15 and 16 in the last Amendment, however, and the Examiner has not specifically

¹ Applicants notes that Examiner objected to claim 3 at page 4 of the Final Office Action dated July 26, 2004, but did not indicate the status of claim 3 on the Office Action Summary page. Applicants assume that the Examiner intends to object to claim 3, as indicated in the Final Office Action.

addressed these claims in the Final Office Action. In any event, claims 15 and 16 depend from claim 1. Accordingly, since claim 1 is allowable, for reasons discussed in greater detail below, claims 15 and 16 are allowable at least due to their dependence from claim 1. Claims 1-20 are currently pending.

The Rejection under 35 U.S.C. § 102(e) Should be Withdrawn

Anticipation under 35 U.S.C. § 102 requires that each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference. If the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is inherent in its disclosure. To establish inherency, the Office must show that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. (See M.P.E.P § 2131 (8th ed. 2001)).

Ikeya discloses a socket apparatus for removably mounting electronic packages using a “flexible contact sheet or film as a contact interface member.” Ikeya, col. 1, ll. 11-12. Specifically, Ikeya employs “a plurality of spring contact elements 15, capable of contacting the plate part 14b1 of each contact 14b of the contact film.” Ikeya, col. 4, ll. 39-41. “Spring contact elements 15 are compression coil springs” Ikeya, col. 4, 43-44. Thus, in Fig. 5a, spring contact elements 15 move up and down vertically to engage the contacts of the contact sheet. In addition, Ikeya has an adapter 13 having a seat 13b for a BGA package 2 for exposing solder balls 2a to contact members 14b from a location above the film. Ikeya, Abstract.

With respect to claim 1, the Examiner alleges seat 13b corresponds to the claimed “movement-amount controlling member.” (Final Office Action, pg. 2.) Applicants respectfully disagree. Seat 13b holds the package 2 in a manner that allows solder balls of package 2 to be exposed to spring contacts 15. However, seat 13b is provided as part of adapter 13 and not spring contact 15 or contact film 14. Therefore, Ikeya fails to disclose at least that the “movement amount controlling member [is] provided as part of said contact sheet . . . ,” as recited in claim 1.

With respect to claim 2, Applicants respectfully note that the Office Action, at page 2, alleges that Ikeya teaches an “accommodation portion” which is not recited in claim 2. Moreover, Ikeya discloses a spring contact 15 located beneath contact film 14, and thus, the reference at least fails to teach the claimed combination including a contact pressing member that “engages the top of the contact sheet,” as recited in proposed amended claim 2.

Accordingly, in view of the above-described deficiencies of Ikeya, Applicants respectfully submit that claims 1 and 2, as amended, are allowable over the applied reference.

The Rejection under 35 U.S.C. § 103(a) Should be Withdrawn

To establish a *prima facie* case of obviousness, each of three requirements must be met. First, the references, taken alone or combined, must teach or suggest each and every element recited in the claims. (See M.P.E.P. § 2143.03 (8th ed. 2001)). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to

combine the references in a manner resulting in the claimed invention. See *id.* Third, a reasonable expectation of success must exist. See *id.* Moreover, each of these requirements must “be found in the prior art, and not based on applicant’s disclosure.” (M.P.E.P. § 2143 (8th ed. 2001)).

Applicants respectfully traverse the rejection of claim 4. Claim 4 depends from claim 2 and contains all the limitations contained therein. As noted above, Ikeya does not disclose that the claimed “contact pressing member engages the top of the contact sheet.” The APA fails to disclose such features, and the Examiner does not rely on APA for teaching the claimed contact pressing member that engages “the top of the contact sheet.”

In particular, Figs. 20-22 at least fails to show a “contact pressing member.” Therefore, even if APA were combinable with Ikeya in the manner exposed by the Examiner, the resulting combination would still fail to disclose each and every element of claim 2. Accordingly, claim 4 is allowable over Ikeya and the admitted prior art at least due to its dependence from claim 2.

Applicants respectfully traverse the rejection of claims 5 and 9-12 under 35 U.S.C. § 103(a). With regard to claim 5, the Examiner concedes that Ikeya does not show the claimed “sinking-amount adjustment section.” The Examiner alleges that this element is shown by page 33, ll. 25-28 of the specification which refers to a “dummy bump 162” made in a manner similar to a method disclosed in Shigeyuki. Applicants respectfully disagree.

Shigeyuki discloses a method of forming a stud bump by using a wire bonding technique. Shigeyuki, Abstract (a copy of Shigeyuki and an English language

translation thereof are attached hereto.) The bumps formed in Shigeyuki are wire bonded to pads (see Shigeyuki, Figs. 1-40). Shigeyuki is silent regarding the claimed “sinking-amount adjustment section” and, therefore, cannot render claim 5 obvious. Accordingly, claim 5 is allowable over Ikeya and Shigeyuki.

Applicants respectfully traverse the rejection of claims 9-12 under 35 U.S.C. § 103(a). With respect to claims 9-12, Applicants respectfully note that the Office Action, at page 4, does not address the claimed “movement-amount restriction member,” but alleges that Ikeya teaches a “sinking-amount adjustment section” which is not recited in claim 9. Thus, in view of the failure of the final Office Action to fully address each and every element of claim 9, Applicants submit that claim 9 is allowable over Ikeya and Shigeyuki at least for this reason.

Moreover, the combination of Ikeya and Shigeyuki fails render claim 9, for example, obvious, because the applied references fail to disclose at least the claimed “movement-amount restriction member, provided as part of said contact sheet and not electrically connectable to the electrode group (emphasis added),” as recited in claim 9. As noted above, Shigeyuki discloses bumps that are wire bonded to pads and thus electrically connectable to a terminal group. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 9, as well as claims 10-12 based on at least their direct or indirect dependency upon allowable independent claim 9.

Applicants respectfully traverse the rejection of claim 6 under 35 U.S.C. § 103(a). The Examiner rejected claim 6 as being unpatentable over Ikeya in view of Shigeyuki and further in view of APA. APA is silent as to the claimed “sinking-amount adjustment

section,” and therefore, does not overcome the above-described shortcomings of Ikeya and Shigeyuki. Claim 6, therefore, is allowable at least due to its dependence from claim 5.

ALLOWABLE SUBJECT MATTER

Objected to claim 3 has been rewritten in independent form as new claim 17, and thus claim 17 is deemed allowable.

CLAIMS 18-20

New claims 18-20, while of difference scope, recite limitations similar to those recited in claims 1 and 2. For example, claims 18-20 each recite one of a “movement amount restricting member” and “contact pressing member.” Claims 18-20 are therefore allowable at least for reasons discussed above in regard to claims 1 and 2.

CONCLUSION

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-20 in condition for allowance. Applicants submit that the proposed amendments of claims 1, 2, 5, 9, 13, and 14 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Now claims 18-20 are also not deemed to raise new issues regarding further consideration and/or search. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against

Applicants' invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance.

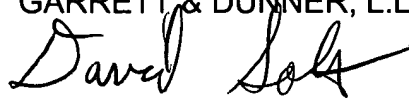
Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: October 26, 2004

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for John M. Romary
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Attachments: Japanese Application Publication No. 11-326379 and
English translation thereof